CONTINUOUS IMPROVEMENT PROJECT DATABASE

DIVISION 6 PROJECTS

Project Name	Project Description	Division	Project Year	Contact Name	Contact Number	Project Category
DIP (Division Improvement Program)	In 2006, Division 6 in conjunction with the GIS unit conceptualized the Integrated Cooperative Planning Procedure (ICPP) that was a method and tools to better plan how and where we should focus our bituminous operations and resurfacing efforts. The key components of this program involved dividing our counties into individual sections, focusing work efforts within a particular section, and developing tools to help determine which sections have priority. This method worked well for our Division and led to better efficiencies in our Bituminous Operations in particular. Building upon our positive results from the ICPP experience, our Division Engineer challenged management to begin to improve our operations in all areas under the guiding principal that pavements should be driving our maintenance decisions and activities. Thus, evolved the current phase of continuous improvement known as the Division Improvement Program (DIP). The primary expectation of DIP was to develop and implement processes that integrate the contributions off all units into a critical path in the areas of resurfacing, bituminous operations, vegetation management, secondary construction, and division design construct applications. During the process of developing the DIP, committee members soon learned that, although we all work for the same company, our individual units were all too often working in isolation without knowledge of what other units were doing or had the capabilities of doing. Due to this lack of coordination between units, we realized that we were not reaching the maximum benefit of what could be accomplished by working together from a unified game plan and, in fact, were being counterproductive to each other in certain operations. The result of this process improvement includes written processes and timelines that have been field implemented in the areas of resurfacing, bituminous operations, vegetation management, secondary construction, and division design construct applications. Several new plans and tools resulted from the efforts including a master paving plan for each District; 2-year plant mix resurfacing plans; 3-year bituminous operations plan; a division wide vegetation management plan (spraying and mowing); standard transmittal format for communicating upcoming work activities / needs between road oil, maintenance, and traffic; and a common environmental review format for tracking permit status. In all, the effort has led to the units working together to minimize 'mistakes' and get the most benefit possible by coordinating our individual work activities to work collectively toward a common outcome.	Div 6	2008	Kenneth L. Clark		Communications
Modified Offset Catch Basins	Project involved converting offset open throat catch basins to standard grated catch basins. Work involved casting new top slabs and placing new hooded frame and grate. New grate was still offset, but by placing concrete apron in front of grate to line up with existing curb and gutter this allowed a straight line for the edge of asphalt pavement. This allowed a better joint at the gutter line, and for future resurfacing projects will allow straight line milling, eliminating the need for incidental milling in the offset areas. This method has been used eighteen times thus far within the Whiteville Resident Office area of Division 6.	Operations Division 6	2005	W. R. Marsh	(910) 642-2489	Dollar Savings
ICPP (Integrated Cooperative Planning Procedure)	Division 6 wanted to find a better way to plan, coordinate and improve the efficiency of the Bituminous Operation with other units. The County Maintenance engineers and the Bituminous supervisor determined each counties annual resurfacing requirements. Counties were divided into sections that could be prioritized based on paving needs. This information was used to plan the work of Maintenance, Bituminous, Traffic and Roadside units within the section. Grouping work led each section to become more productive and cost effective. GIS assisted Division 6 by merging road treatment data with the Pavement Condition survey and Universe data, which was overlaid on GIS digital road layer. This allowed the division to select road segments by querying multiple road conditions at one time. The application facilitates a centralized means of communication between County Maintenance engineers, Bituminous supervisor, GIS and DDC unit.	Operations- Division 6	2005	Greg Burns	(910)437-2611	Communications

Span Replacement	In the past five years more than a dozen bridges in Division 6 have been severely damaged enough by vehicles carrying oversized loads to warrant closing the bridge. These types of impacts usually occur to bridges with vertical clearances between 14'-5 and 14'-9. The department typically has three repair choices: 1) replace the girder but leave the clearance the same, 2) repair and raise the entire bridge, which is very costly, and 3) replace the damaged span with a cored slab span. The third option is the most cost effective due to the fact that the work can be accomplished in less than three weeks by the department. No additional work has to be done to raise other spans nor is earthwork/paving to approaches required. Replacement of original girders with a cored slab also provides an additional 18 of vertical clearance. The cost in traffic delays and rerouting as a result of damaged bridges is estimated to be $480,000 per day for I-95 and $17,000 per day for secondary crossings.	Operations- Division 6	2005	Sonny Upole	(910) 829-6345.	Customer Service
Rapid Frame	While framing for concrete lids for junction boxes, drop inlets and catch basins lumber always had to be cut for the particular box size. Thus causing a waste in lumber and man-hours to build for each. The solution was the Rapid Frame, which consists of 4 pieces of lumber and 4 T-channels. All can be reused by simply adjusting to the lid size required and tack nail T-channels.	Operations- Division 6	2005	G.M. Taylor	(910) 486-1421.	Labor Hour Savings
Soules Swamp Boardwalk	US 701 Business crosses Soules Swamp on the south side of the City of Whiteville. The swamp is approximately 1000 ft. wide and separates a low-income residential area from a shopping district. Although there was a bridge with a 5-foot sidewalk across the run of the swamp, there was no sidewalk up to the bridge on either side. People were trying to cross the swamp on foot, usually by walking very close to or even on, the roadway, creating a serious safety hazard between pedestrians and the motoring public. Structural analysis of the existing infrastructure, such as concrete piers anchoring a sewer main, revealed that the piers could support additional weight. The solution was to construct a wooden boardwalk on top of the sewer main, using the concrete piers for footing support, in those areas where the existing shoulder was too narrow for a conventional sidewalk. In those areas where the shoulder was wide enough, a standard 5-foot wide concrete sidewalk was constructed.	Operations-Division 6	2005	R. Allen Waddell	(910) 642-3760.	Safety Improvement